

Definitions: Topic 1: The Scientific Method

Unit 2: Research Methods

MULTIPLE CHOICE

1. What approach attempts to gather information and to answer questions in such a way that errors and bias are minimized?

a. debriefing
b. random selection
c. scientific method
d. variable manipulation

ANS: C PTS: 1 DIF: Remember

OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

2. The “scientific” part of psychology refers to its use of ____.

a. the scientific method
b. introspection
c. theories
d. statistics

ANS: A PTS: 1 DIF: Understand

OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

3. The scientific method attempts to ____.

a. propose theoretical ideas to answer questions
b. minimize errors and bias in gathering information and answering questions
c. promote common sense understanding
d. dispute common sense by forcing scientists to do experiments

ANS: B PTS: 1 DIF: Understand

OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

4. The scientific method is defined as ____.

a. an approach to answering questions that minimizes errors and bias
b. a faith that precise equipment will produce accurate information
c. all of the findings of science in the modern era
d. a set of guidelines published by the American Academy of Science

ANS: A PTS: 1 DIF: Remember

OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

5. In conducting an experiment, a precisely worded, educated guess is called a ____.

a. hypothesis
b. proposal
c. variable
d. randomization

ANS: A PTS: 1 DIF: Remember

OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

6. What is the method of developing knowledge based on the evaluation of evidence from experiments and careful observation?

a. introspective approach
b. statistical approach
c. empirical approach
d. theoretical approach

ANS: C PTS: 1 DIF: Remember
OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

7. The goals of psychology are to describe, predict, explain, and ____.
- a. replicate studies
 - b. control events
 - c. manipulate behavior
 - d. publish results

ANS: B PTS: 1 DIF: Understand
OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

8. Hypotheses are ____.
- a. conclusions drawn from observations
 - b. precise predictions that can be tested through research
 - c. useful only if they prove to be correct
 - d. explanations that organize observations and account for the relationships among them

ANS: B PTS: 1 DIF: Remember
OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

9. Which of the following is a step in the scientific method?
- a. Developing a theory
 - b. Selecting a research method
 - c. Consulting the literature
 - d. Forming a hypothesis

ANS: D PTS: 1 DIF: Remember
OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

10. Which of the following is the correct order of steps in the scientific method?
- a. Forming a hypothesis, developing a research question, gathering evidence, drawing conclusions
 - b. Gathering evidence, developing a research question, forming a hypothesis, drawing conclusions
 - c. Developing a research question, forming a hypothesis, gathering evidence, drawing conclusions
 - d. Formulating a theory, developing a research question, gathering evidence, drawing conclusions

ANS: C PTS: 1 DIF: Understand
OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

11. One important difference between science and everyday observations is that science relies on ____.
- a. objectivity
 - b. introspection
 - c. perspective
 - d. subjectivity

ANS: A PTS: 1 DIF: Remember
OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

12. Any observation by a human being is, by definition, ____.
- a. objective
 - b. falsifiable
 - c. inferential
 - d. subjective

ANS: D PTS: 1 DIF: Remember
OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

13. Which of the following best describes scientific knowledge?
- a. historical and progressive
 - b. stable and changing
 - c. qualitative and definitive
 - d. quantitative and procedural

ANS: B PTS: 1 DIF: Understand
OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

14. The ability to think clearly, rationally, and independently is called ____.
- a. moral reasoning
 - b. authoritative reasoning
 - c. free thinking
 - d. critical thinking

ANS: D PTS: 1 DIF: Remember
OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

15. The ability to think critically is ____.
- a. a skill that people need to learn
 - b. set by the teenage years
 - c. genetically determined
 - d. based on cultural norms

ANS: A PTS: 1 DIF: Understand
OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

16. A set of facts and relationships between facts that can explain and predict related phenomena is called a(n) ____.
- a. theory
 - b. hypothesis
 - c. descriptive method
 - d. experiment

ANS: A PTS: 1 DIF: Remember
OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

17. The best scientific theories not only explain and organize known facts, but they also generate new ____.
- a. facts
 - b. predictions
 - c. conclusions
 - d. behaviors

ANS: B PTS: 1 DIF: Remember
OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

18. As Sir Isaac Newton noted, scholars stand ____.
- a. on shifting sands
 - b. beneath the tree of knowledge
 - c. on the shoulders of giants
 - d. at the intersection of history and knowledge

ANS: C PTS: 1 DIF: Remember
OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research. TOP: Methods for All Sciences

19. What is a proposed explanation for a situation, usually taking the form “if A happens, then B will be the result”?
- a. theory
 - b. research proposal
 - c. experiment
 - d. hypothesis

ANS: D

PTS: 1

DIF: Understand

OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research.

TOP: Methods for All Sciences

20. Scientific hypotheses must be both ____.
- a. falsifiable and testable
 - b. valid and replicable
 - c. falsifiable and reliable
 - d. valid and testable

ANS: A

PTS: 1

DIF: Understand

OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research.

TOP: Methods for All Sciences

21. What feature of a hypothesis means that it can be evaluated using known scientific methods?
- a. replicable
 - b. testable
 - c. reliable
 - d. valid

ANS: B

PTS: 1

DIF: Understand

OBJ: LO1: Outline the steps in the scientific method and articulate the importance of each with respect to psychological research.

TOP: Methods for All Sciences